AN ALL-OVER CORDED BELL BEAKER IN NORTHERN PORTUGAL: CASTELO VELHO DE FREIXO DE NUMÃO (VILA NOVA DE FOZ CÔA): SOME REMARKS*

by

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Abstract: A Bell Beaker sherd with an 'all-over corded' type of decoration is presented; the piece was found at the prehistoric site of Castelo Velho, near Freixo de Numão (Vila Nova de Foz Côa, northern Portugal). The importance of this discovery is briefly discussed in the context of other beaker vessels from the north of Portugal and of AOC-type pottery in the Iberian Peninsula.

Key-words: Bell Beaker; AOC type of Bell Beaker; Castelo Velho monument.

Resumo: Apresenta-se a descoberta de um fragmento de vaso campaniforme cordado no sítio préhistórico de Castelo Velho de Freixo de Numão (Vila Nova de Foz Côa, Norte de Portugal), realizando-se um breve enquadramento da problemática dos vasos campaniformes do Norte de Portugal e dos AOC peninsulares.

Palavras-chave: Vaso campaniforme; campaniforme cordado (AOC); monumento de Castelo Velho.

I. INTRODUCTION

The site of Castelo Velho de Freixo de Numão (Vila Nova de Foz Côa) has been studied by the author since 1989. During this time there have been twelve excavation campaigns and several research projects, leading to six masters theses submitted to the University of Porto. Several studies have also been published (Jorge, S. O. 1993, 1994, 1998, 1999a, 2001; Jorge, S. O. *et al.* 1998/1999; Antunes, M. T. & Cunha, A. S. 1998; Figueiral, I. 1998). In addition, one doctoral and three masters theses are now being prepared for submission to the University, and in the medium term a monograph on the site is planned as a culmination of this long process of investigation.

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In 2000 the site of Castelo Velho came into the possession of the State, under the auspices of IPPAR (Instituto Português do Património Arquitectónico). In 2001 a project was formulated, under the direction of the author, to study and improve the value of the heritage of the site and its immediate area, and this was successfully entered by IPPAR in the *Programa Operacional de Cultura*. The project, lasting initially for three years, aims to prepare the area for public access, using the knowledge built up over nearly a decade and a half of multidisciplinary research (Jorge, S.O., in press a).

The initial occupation of Castelo Velho de Freixo de Numão (Figs. I & II) was on the summit of a spur, at an altitude of about 681 m. From this time there are the remains of a tower, some paving, and traces of structures for burning, scattered in small isolated areas on the top of the hill. These structures are covered by greyish-brown sediment forming layer 4 of the site. This first phase of occupation may correspond to the founding of the site.

Basic changes were made to the site after this first phase. A 'monument' of stone and clay was built on the top of the spur, consisting of an elliptical enclosure surrounded by a platform and various 'ramps' (Fig. III). In this phase of the monument there were many structures near the summit, both within and outside the enclosure. The sediment connected to this second phase of construction and occupation, layer 3 of the site, is mainly yellowish. This layer would have been contemporary with the construction and prolonged use of the main structures and spaces of the upper part of the monument: enclosure, bastions, central tower, retaining walls, platform and 'ramps' (as initially conceived). Thus, unlike layer 4, which relates to a relatively short phase in the life of the site, layer 3 corresponds to a long period, during which a complex monumental area was built and maintained, used and abandoned.

At a particular point the monument was significantly altered: certain structures were abandoned and others were built, and the 'ramps' and the intermediate platform were reinforced. However, the initial layout remained, that of an enclosure surrounded by platform and 'ramps'. The colours of the sediment connected to this third phase of occupation and construction, layer 2 of the site, are mainly brownish. This layer may correspond to a shorter period when access to and use of the summit of the monument was changed.

Finally, a great deal of stone was deliberately placed on the site, after which it was abandoned. At the places where this is most clearly seen, there are real terraces of stones and clay, entirely covering the structures of layer 2.

A thorough study is at present being made of the chronology of the site, based on interpretation of thirty C-14 dates (Jorge, S.O, & Rubinos, A., 2002). However, we can already put forward the following hypotheses on the general development of the site:

- the first phase of building would have begun about 3000 BC, the occupation being short-lived;
- the second phase, a break with the first, would have occurred not long afterwards (100-200 years?). The monument built in this phase had a very long life, probably up to the early 2nd millennium BC. In confirmation of this, the second phase of building would have crossed the conventional boundaries of the Chalcolithic and

early Bronze Age, remaining in use between approximately 2900/2800 and 1900//1800 BC (dating still approximate);

- the third phase of building, which does not represent a break with the first, at least in the overall scheme, would have been between the early 2nd millennium and approximately 1300 BC, that is between the middle of the early Bronze Age and middle Bronze Age;
- finally, around 1300/1200 BC (conventional limits), the site would have been abandoned after layers of stone and clay had been placed there, apparently deliberately.

It was only much later, in the Middle Ages, that Castelo Velho de Freixo de Numão was again briefly and sparsely inhabited¹. What remains of this period indicates that in certain small areas, and without causing much damage, the layers of stone and clay which had shut off the Bronze Age monument were removed.

During the 2001 campaign, excavations were made in a wide area around the upper enclosure to the east and south, down to the path made some years ago by the CELBI company (former owners of the land), which acts as an artificial boundary of the area currently under study (Fig. II).

Along with this, a thorough excavation was made of an area partially excavated in 1998, situated to the east outside the upper enclosure and including various squares containing sediment corresponding to layer 3 of the site. It was in square L'15 (Fig. III), at the bottom of layer 3, that a piece of pottery was found with a decoration that was new to this layer.

Study of thousands of sherds from layer 3 during twelve years of research had alerted us to the existence of a highly coherent group of pottery within the so-called regional Chalcolithic, especially in its intermediate and final phases (Jorge, S.O. 1986; Sanches, M.J., 1997). In this layer the predominant decoration is the so-called *penteada*, in various patterns, some using lines of points, incision or impression. On one example there was also part of a possible 'eye' motif in the *penteada* decoration. As we know, this pattern, although not common, has parallels in northern Portugal in Chalcolithic sites in Trás-os-Montes (e.g. São Lourenço and Vinha da Soutilha, Chaves, and Buraco da Pala, Mirandela) (Jorge, S.O., 1986; Sanches, M.J., 1997).

However, there had always been an absence of Bell Beaker pottery. This was particularly significant in view of the volume of sherds studied, and also because Castelo Velho is near Castanheiro do Vento (Vila Nova de Foz Côa) (Jorge, V.O., *et al*, 2002) and particularly *to Cr*asto de Palheiros (Murça) (Barbosa, S.C.P., 1999; Sanches, M.J., in press a, b), where many Bell Beaker sherds had been found.

¹ A short article on this phase is being prepared.

II. THE BELL BEAKER AT CASTELO VELHO DE FREIXO DE NUMÃO

1. Stratigraphic context (Figs. III & IV)

A Bell Beaker sherd was found at the bottom of layer 3 (where it meets the bedrock), in square L'15, approximately 50 cm below the present soil level. The only significant structure nearby is a retaining wall (Fig. III) outside the wall of the upper enclosure. The sherd was found with Chalcolithic material, particularly pottery, which was stylistically similar to that common in layer 3.

2. Description of the technique and form of the sherd (Figs. V & VI)

This small sherd belongs to the upper part of a Bell Beaker, with a curved neck and thin walls.

The material has grits, especially fine-and medium-grained quartz and mica inclusions. The inner and outer surfaces, very eroded, are slightly reddish in colour, and the core is dark grey. The sherd is decorated with impressions of narrow cord; the two lines of twisted cord are symmetrical. This is probably what Salanova (2000, p. 31) classified as *cordelette crochetée* – a decoration of impressed lines, parallel to the rim, alternating with undecorated areas; the lines of decoration are in deeper furrows than the undecorated parts. This pattern (parallel equidistant lines) was probably spaced all over the vessel. It can be seen that the cord was twisted in different directions in alternating lines: on this sherd there is, from top to bottom, a line twisted to the left, a second line to the right, the third and fourth lines to the left and the fifth line to the right. This technique and patterning are classic forms in the context of pure European and Peninsular corded ware, and have parallels with the decoration on a vessel at Filomena on the Levantine coast (Esteve, F., 1956. Lam. II, 17; Harrison, R., 1977 a, p. 201, fig. 87, 1750).

3. Absolute chronology of layer 3: some data

Of the sixteen C-14 dates presently available for layer 3 of Castelo Velho, nine show values falling entirely within the 3rd millennium BC (calculated to 2 sigma). We present these dates here without any comment on their specific contexts, since they will soon be interpreted in an article covering thirty C-14 dates from this site (Jorge, S.O. & Rubinos, A., 2002).

ICEN	785 – 2877 – 2495 BC
Sac	1518 – 2884 – 2492 BC
CSIC	1706 – 2860 – 2472 BC
GrN	23512 – 2876 – 2290 BC
ICEN	1165 – 2872 – 2202 BC
ICEN	526 – 2875 – 2145 BC
Ua	17647 – 2623 – 2200 BC
Ua	17648 – 2492 – 2041 BC
CSIC	1655 – 2474 – 2292 BC
1	

It must be pointed out here that only three of these dates (the first on the list) show periods within the first half of the 3rd millennium BC. The other four indicate very long time spans, occupying almost the whole of the millennium, while the last points to a short interval, in the second half of the 3rd millennium.

These dates are for samples of charcoal from hearths or concentrations of charcoal, mostly from inside the upper enclosure and from the platform or the top of the second 'ramp' in the western part of the monument.

We should emphasise that none of these dates (or any other, from this or from other layers) is related to the samples found in square L'15, where the corded Bell Beaker sherd was found.

III. THE CORDED VESSEL FROM CASTELO VELHO IN THE CONTEXT OF REGIONAL AND PENINSULAR BEAKER POTTERY

1. Bell Beaker pottery in northern Portugal: notes

(Table 1 & Fig. VII)

Table 1

	Site	Context	Decoration	Bibliography
1	Chã de Arcas (Arcos de Valdevez)	Mound	Maritime, lined variety	Jorge, S.O., 1986; Cruz, D.J., 1991
2	Mound 1, Portela do Pau (Melgaço)	Megalithic chamber tomb	Maritime, lined variety; geometric comb decoration	Jorge, V.O., Baptista, A.M., Silva, E.J.L., Jorge, S.O., 1997
3	Castelo de Fraião (Valença)	Settlement (?)	Maritime, lined variety (?)	Almeida, C.A.B., Soeiro, M.T., Barroca, M., 1995
4	Dolmen, Barrosa (Caminha)	Passage grave	Geometric comb decoration (?)	Jorge, S.O., 1986; Cruz, D.J., 1991
5	Aspra (Caminha)	Mound	Maritime, Herringbone variety; geometric comb decoration	Cruz, D.J., 1991
6	Mound, Eireira (Viana do Castelo)	Passage grave	Maritime, Herringbone variety	Cruz, D.J., 1991
7	Mound, Chafé (Viana do Castelo)	Megalithic chamber tomb	Maritime, Herringbone variety	Jorge, S.O., 1986; Cruz, D.J., 1991
8	Lugar de Vargo (Fafe)	Burial context	Geometric comb decoration	Bettencourt, A.M., 1991/2
9	Guilhabreu (Vila do Conde)	Mound	Maritime, lined variety	Jorge, S.O., 1986; Cruz, D.J., 1991
10	Dolmen 1, Chã de Parada (Baião)	Passage grave	Maritime, lined variety; geometric comb decoration	Jorge, S.O., 1986; Cruz, D.J., 1991

11	Mound 2, Outeiro de Ante (Baião)	Megalithic chamber tomb	Geometric comb decoration	Jorge, S.O., 1986; Cruz, D.J., 1991
12	Tapado da Caldeira (Baião)	Settlement	Maritime, lined variety; geometric comb decoration; incised (Ciempozuelos)	Jorge, S.O., 1986; Cruz, D.J., 1991
13	Mound 1, Chã do Carvalhal (Baião)	Megalithic cist chamber	Maritime, lined variety; incised; plain (Palmela/Ciempozuelos)	Jorge, S.O., 1986; Cruz, D.J., 1991 & 1992
14	Mound, Monte Maninho (Baião)	Megalithic chamber tomb	Geometric comb decoration (?)	Cruz, D.J., 1991
15	Mound, Vale de Juros (Baião)	Megalithic chamber tomb	Geometric comb decoration (?)	Cruz, D.J., 1991
16	Mound 1, Carvalhelhos (Baião)	Mound	Incised	Jorge, S.O., 1986; Cruz, D.J., 1991
17	Pastoria (Chaves)	Settlement	Maritime, lined variety; geometric comb decoration; local styles; plain	Jorge, S.O., 1986; Cruz, D.J., 1991
18	Mound 1, Madorras (Sabrosa)	Passage grave	Maritime, lined variety; geometric comb decoration; (Ciempozuelos/ Palmela (?))	Jorge, S.O., 1986; Cruz, D.J., 1991; Gonçalves, A.A.H.B., Cruz, D.J., 1994
19	Crasto de Palheiros (Murça)	'Monument'	Maritime, lined & Herringbone variety; geometric comb decoration; plain; incised (Ciempozuelos)	Barbosa, S.C.P., 1999; Sanches, M.J., in press a, b
20	Castanheiro do Vento (V. N. de Foz Côa)	'Monument'	Maritime, lined variety	Jorge, V.O., Muralha, J., Pereira, L., Coixão, A.S., 2002
21	Castelo Velho (V. N. de Foz Côa)	'Monument'	Corded (AOC)	Jorge, S.O., 1998; Jorge, S.O., 2001

1.1. We shall comment briefly on Table 1 (Fig. VII). In the first place it is important to remember that we shall focus only on Beaker pottery from north of the Douro, although the sites of Castelo Velho and Castanheiro do Vento are on the south bank of the river. Obviously we shall only mention pottery that has been published (Jorge, S.O., 1986; Cruz, D.J., 1991). However, we are well aware that if all the material from the many northern Portuguese burial sites excavated in the last fifteen years were printed, the distribution map of Bell Beaker pottery would be wider, but also the interpretations based on its analysis could lead us into unexpected difficulties.

A summary analysis of Table 1 allows us to highlight the following:

- Of the twenty-one sites mentioned, fifteen are burial contexts, four are settlements and three belong to a new category which we have called 'monuments' (or 'mo-

numental areas'), which we prefer to 'settlements – monuments' (Sanches, M.J., in press a, b) for reasons which we shall not discuss here.

- With relation to the fifteen burial contexts, we can see that five of them are on the coast and eight inland but near the coast, while only two are in the interior (western Trás-os-Montes).
- Except for the evidence of Mound 1 of Chã do Carvalhal (Baião) and of a hypothetical burial context (Lugar de Vargo, Fafe), the other tombs were mostly built in the middle late Neolithic. Thus, except for the above two cases, Beaker pottery appears as an intrusion from the 3rd millennium in burial monuments whose origin goes back to the 5th or 4th millennium BC.
- As for the settlements and 'monuments', they are distributed inland from the coast (two) and in the interior (four). These sites are very different from each other, and difficult to compare. In four of them, Beaker pottery is found in association with local Chalcolithic material.
- Analysing these various sites, we can see that the corded Beaker pottery of Castelo Velho is an isolated example within these contexts. On the other hand, we find Maritime complex (Herringbone and lined varieties), combed decoration with geometric motifs (Moreno, 1971/72; Delibes, G., 1977), and incised decoration, which can in some cases be connected with the Palmela/Ciempozuelos complexes. There are also styles which can be considered local, and plain Beaker vessels.

We shall now look at the styles of decoration.

Maritime complex, Herringbone variety is found in four tombs and a 'monument': three burial sites on the coast (Aspra, Caminha; Eireira, Viana do Castelo; Chafé, Viana do Castelo), another inland near the coast (Mound 1 at Chã do Carvalhal, Baião), and one 'monument' in the interior (Crasto de Palheiros, Murça).

Maritime complex, lined variety is more widely distributed. It appears in five tombs, three probable settlements and two 'monuments': one burial on the coast (Mound of Guilhabreu, Vila do Conde), three burials and two possible settlements inland near the coast (respectively Chã das Arcas, Arcos de Valdevez; Mound 1 at Portela do Pau, Melgaço; Dolmen 1 at Chã de Parada, Baião; Castelo de Fraião, Valença; Tapado da Caldeira, Baião); a burial, a settlement and two 'monuments' in the interior (respectively Mound 1 at Madorras, Sabrosa; Pastoria, Chaves; Crasto de Palheiros, Murça; Castanheiro do Vento, Vila Nova de Foz Côa).

Comb decoration defining geometric motifs is also widely found in northern Portugal. It appears in ten burials, two settlements and a 'monument': two coastal tombs (Dolmen at Barrosa, Caminha; Mound at Aspra, Caminha), seven tombs and a settlement inland near the coast (respectively Mound 1 at Portela do Pau, Arcos de Valdevez; Lugar de Vargo, Fafe; Dolmen 1 at Chã de Parada, Baião; Mound 2 at Outeiro de Ante, Baião; Mound 1 at Chã de Carvalhal, Baião; Mound at Vale de Juros, Baião), and one burial, one settlement and one 'monument' in the interior (respectively Mound 1 at Madorras, Sabrosa; Pastoria, Chaves; Crasto de Palheiros, Murça).

Incised Bell Beakers are much less important than the previous two decorative styles. In fact, they appear in only two burials, one settlement and one 'monument': a tomb and

a settlement inland from the coast (Mound 1 at Chã do Carvalhal, Baião; Tapado da Caldeira, Baião), and a tomb and a 'monument' in the interior (Mound 2 at Carvalhelhos, Boticas; Crasto de Palheiros, Murça).

Bell Beaker shapes with local decoration (based on penteada impressions) are known from at least two sites: the shelter of Buraco da Pala I (Mirandela) (Sanches, M.J., 1997) (not mentioned in Table 1) and the Acebuchal type from the settlement of Pastoria (Chaves) (Jorge, S.O., 1986). Both these sites are in Trás-os-Montes, in the interior of the country.

Plain Bell Beakers have also been found: one from Mound 1 at Chã do Carvalhal (Baião), inland but near the coast, another from the settlement of Pastoria (Chaves), and several from the 'monument' of Crasto de Palheiros (Murca) in inland Trás-os-Montes.

We shall not be dealing with local Chalcolithic forms with *penteada* decoration, a local style of Maritime Bell Beakers (Jorge, S.O., 1986). These vessels are found in many sites throughout northern Portugal; we do not intend to analyse and interpret them here, since our main aim, to publish the corded Bell Beaker, must be based in its essentially regional setting.

Finally, examining the data summarised in Table 1, it is easy to see that in northern Portugal Maritime Bell Beakers (Herringbone and lined varieties) and comb decoration with geometric motifs predominate, although in the latter case it is not always easy to see the connection with the Palmela/Ciempozuelos complexes. These complexes have been found in the following contexts: the settlement of Tapado da Caldeira, Baião (Ciempozuelos); Mound 1 of Chã de Carvalhal, Baião (Palmela/Ciempozuelos); Mound 1 of Madorras, Sabrosa (Ciempozuelos/Palmela (?)); the 'monument' of Crasto de Palheiros, Murça (Ciempozuelos). Thus, the so-called 'evolved' styles are found in a settlement, a 'monument', a reused neolithic tomb and in a later tomb, contemporary with Bell Beaker pottery itself: that is to say, these styles are diverse in location and context.

1.2. On the dating of Bell Beaker pottery in northern Portugal, the only site supplying C-14 dates for such a context is Crasto de Palheiros, near Murça (Barbosa, S.C.P., 1999; Sanches, M.J., in press). Here, there are two dates which do not coincide, one between 2862 and 2493 BC and the other between 2278 and 1992 BC (calculated to 2 sigma). J. Sanches (in press b, Table 1) prefers the former, dating this context to the first half of the 3rd millennium BC.

However, the predominance in the north of the country of supposedly archaic styles, which in other parts of the Peninsula, such as Estremadura and the Alentejo, can be seen as evidence of early dates, from the early or mid-3rd millennium BC (Cardoso, J.L. & Soares, A.M., 1990/92; Cardoso, J.L., 2000) does not in itself permit us such dating here. On the one hand, some 'archaic' styles (Maritime, Herringbone &/or lined) could have survived and coexisted in some contexts with more 'evolved' styles (see, for example, Mound 1 at Chã do Carvalhal, Baião). On the other hand, there is nothing to stop us from thinking that the general circulation of Bell Beaker pottery, in its diverse styles and regional adaptations, could, in northern Portugal, have happened in a short space of time (in the 3rd millennium BC).

Given the lack of a series of absolute dates, and the rarity of unequivocal contextual associations, it is at present impossible to establish an internal chronology for the various styles found. This of course includes the corded vessel from Castelo Velho. Locally, it was

found at the bottom of a layer which developed over many centuries. Although we might believe that it arrived at an early period in the life of the site (according to the accepted chronological parameters for Peninsular corded ware, which we shall mention later), we do not yet have any archaeological proof to confirm it.

The absolute chronology of Bell Beakers in the north of Portugal therefore remains open, despite the many excavations by a variety of teams in the last twenty years.

2. Peninsular corded Bell Beakers: a brief overview (Fig. VIII)

Bell Beakers with corded decoration (all-over corded, following Harrison, 1977 a) are widespread in Europe, and may have preceded the Herringbone variety of the Maritime complex (Harrison, R., 1977 a, b, p. 7).

However, in the Iberian Peninsular the AOC type was traditionally restricted to half a dozen scattered sites in the western Pyrenees, the lower Ebro and the Spanish Levant coast (Harrison, R., 1977 a, p. 13, fig. 3; 1977 b, p. 7, fig. 1.1). For Harrison (1977, a, p. 13), it is in fact only at the Levantine coastal site of Filomena (Villarreal, Castellón) that this type in its typical version is well represented in the Peninsula (Harrison, R., 1977 a, p. 201, fig. 87, 1750).

Nevertheless, publication of later finds of corded Beaker ware widened its distribution to the south and west (Suárez Otero, J., 1997 a, b). In 1997 further sites were recognised: two in the region of Cantabria, two in Galicia, one on the coast near Valencia and one in the southeast (Suárez Otero, J., 1997 b, fig. 1)².

Generally it was possible in 1997 to arrive at the following basic ideas about corded Beakers in the Peninsula:

- pure corded ware (AOC) was usually found in coastal or near-coastal regions rather than in the interior:
- with the exception of an isolated point in the south-east (Terrera Ventura), there
 were three geographical centres: the western Pyrenees, the lower Ebro and the
 adjoining parts of the Levantine coast, and the northweast;
- despite the difficulty of evaluating most of the archaeological contexts, it seemed that AOCs were mainly found in caves or, more generally, in domestic contexts;
- as for the geographical distribution and the types of sites, leaving aside technique and style, pure corded ware (AOC) differed in many respects from corded ware of the zoned variety (C/ZM) (according to Harrison, 1977 a, p. 14, this was the result of the hybridisation of the Herringbone variety of the Maritime complex with pure corded Beakers). In fact, the zoned variety, unlike pure corded vessels, expanded westward, especially along the mountain systems of the Meseta (Suárez Otero, J., 1997 a, fig. 6). The zoned variety, on the other hand, was mainly found in burial contexts;

² Corded Beakers from Ferrandell-Oleza, on Mallorca (Suárez Otero, J., 1997 b, p. 35, fig. 1), will not be discussed here, since we are only dealing with the mainland.

- although it was difficult to arrive at a precise chronology of Peninsular corded Bell Beakers, a case could be made, by the correlation of variables, for a very early date, closely related to the Herringbone, lined and cord-zoned varieties of the Maritime complex, and to some local styles. Based on calibrated dates (Suárez Otero worked with conventional dates), the period would be the first half to the middle of the 3rd millennium BC;
- in 1997, Suárez Otero put forward the hypothesis of two coastal routes for the entry of corded Beakers: one would have been from the east, from western France, then along the Cantabrian coast to the northwest of the Peninsula; the other, starting in eastern France, would have passed along the Mediterranean coast and reached the south of the Peninsula. He considered that the spread of Bell Beakers would have been related to migratory movements, leading to a break with local traditions and a period of confrontation.

In his studies of 1997, Suárez Otero mentions two sites in Galicia with pure corded Beakers and one with the zoned variety: A Fontenla, Arca dos Penedos and Forno dos Mouros respectively. The last, situated in the mountainous zone of Bocelo, in the centre of Galicia, is a passage grave; the first two are a coastal settlement (A Fontenla) and a shelter of unknown function (Arca dos Penedos) in the valley of the Limia, also in the interior. Suárez Otero (1977 b) rightly emphasises the "geographical, contextual and formal diversity" of these three vessels. Leaving aside for the moment the zoned vessel from Forno dos Mouros, we shall now look at the other two finds.

A Fontenla was a coastal settlement, 140 m above the Ria de Vigo. Two levels of occupation have been identified: the earliest, possibly from the end of the 4th/1st half of the 3rd millennium BC, has plain pottery and some impressed ware; the more recent, probably from the mid-3rd millennium BC, has impressed and incised-impressed pottery, attributable to the 'Penha-type' styles, together with Bell Beakers³. Apart from fragments of lined variety and geometric combed decoration, there are sherds of a Bell Beaker with corded decoration. This is the upper part of a vessel decorated with lines parallel to the rim, made by narrow string, separated into zones. This vessel is related to the classic forms of Peninsular AOC.

In Arca de Penedos, a vessel was found on the surface, with a less sinuous profile than the one described above, decorated with impressions of a double cord in a series of lines; this shows some parallels with the few examples found in the Peninsula.

In Portugal we know of only one vessel similar to the one published in the present article; this comes from the probable settlement of Porto Torrão (Ferreira do Alentejo) (Arnaud, J.M., 1993)⁴. Stratigraphically, the parts of this 100-hectare site which have been surveyed and excavated consist of three layers. Layer 3 is pre-Bell Beaker and contains material typical of the southwestern Chalcolithic. In layers 2 and 1 local Chalcolithic

³ This context is reminiscent of the final phase at Pastoria (Chaves). It should be noted, however, that even in the area of Chaves the metope decoration on pottery only began about the end of the 4th millennium, and lasted at least into the mid-3rd millennium BC. On the coast the chronology is unknown.

⁴ Our thanks to J. L. Cardoso for reminding us of this.

material is associated with Beaker pottery, and corresponds, according to Arnaud, with the early and middle period of the development of the style. Here was found "a small Bell Beaker, smoothly curved in outline and flat bottomed, with corded decoration which seems to have covered most of the vessel". (Arnaud, J.M., 1993, p. 42, fig. 6.1). The design seems to us to be the impression of a fine cord, apparently a simple double line, forming a series of lines parallel to the rim over nearly the entire surface. Apart from this vessel, many Bell Beaker sherds, related to the Herringbone variety and sometimes to geometric comb decoration, were found on or below the surface, especially in the 'nucleus' of the site. Arnaud also mentions a V-perforated bone button, copper and gold objects and a piece of a wristguard.

In his 1993 article, Arnaud gives a C-14 date for a bone sample from layer 1, which, when calibrated, gives a time-span of between 3335 and 2800 BC (Arnaud, J.M., 1993, p. 46). However, a later revision of C-14 dates from the site (Cardoso, J.L. & Soares, A.M.M., 1990/92), using other absolute dates, also for bone samples from layer 1, provided a weighted average which, calibrated to 2 sigma, gave a period between 2823 and 2658 BC (Cardoso, J.L., 2000, Table XXI) – this is one of the few pieces of chronological data from the Peninsula indicating the first half of the 3rd millennium BC for the manufacture and use of this pottery.

We should point out that analysis of the clay used in the pottery from the pre-Bell Beaker and Bell Beaker layers shows that all "were made locally, from at least three chemically distinct types of clay found very close to the settlement" (Arnaud, J.M., 1993, p. 47).

3. Conclusion

The vessel found at Castelo Velho de Freixo de Numão brings the few corded Bell Beaker sites published from the mainland of the Peninsula up to a total of thirteen. But apart from its relative importance, can this discovery lead us to consider the setting of this pottery in a context beyond the region?

Firstly, we must remember the *location* of Castelo Velho – on the left bank of the Douro, near one of its tributaries, and just over 100 km from the Atlantic coast. Among sites with pure corded pottery, it is, after Camón de las Fitas (Fig. VIII), the second furthest from the sea. The sites of Arca dos Penedos (Galicia) and Porto Torrão (Alentejo), although nearer the coast, have already shown us an advance of AOC (or at least of what has so far been discovered) into the interior. The location of Castelo Velho clearly does not change the fact that the majority of sites with pure corded ware are near the sea, but it does affect the idea that this pottery was only found coastally. Furthermore, although we shall not enter into discussion here on possible entry routes of AOC from starting points beyond the Pyrenees (western/Atlantic and southern/Mediterranean), it seems to us that this find in the Portuguese upper Douro shows the need for a complete rethink of the ways that this pottery circulated in the Peninsula.

Secondly, let us return to the *context*. The appearance of a corded vessel in Castelo Velho, while it strengthens the idea that this pottery was rare in burials, also leads us to believe that it could be found in a wide variety of situations: not only in caves or open

settlements, but, if we accept the recent interpretation of the site (Jorge, S.O., 1998, 1999 a, 2001), also in multifunctional monumental spaces connected with affirmation of group identity. Furthermore, the discovery of a corded Bell Beaker at the large 'settlement' of Porto Torrão in the Alentejo may show us the pottery in another kind of site – the ditched enclosures of the southwest of the Peninsula (Jorge, S.O., 1999 b, p. 96). Given the scarcity of AOC sites in Spain and Portugal, it therefore seems fair to assume that the pottery was found in a wide variety of contexts.

Thirdly, in mentioning technique and decorative organisation, we do not intend to open new areas of discussion, but simply to state a fact: it is difficult to be specific about the technique used in cord impressions. This is for two basic reasons: the technique itself is highly dynamic, varying from vessel to vessel according to twisting, tension, sideways movement, etc. (Salanova, L., 2000 a, pp. 31-32); furthermore, technical description of the decoration of Peninsular vessels is often inadequate, omitting details fundamental to an understanding of their variability and complexity. Hence it is difficult, from published results, to compare the Castelo Velho sherd with other examples from the Peninsula. If it really is similar to the vessel from Filomena (not only on the technical level, but in decorative organisation), it is certainly curious that, on the other side of the Peninsula, there appears a vessel which fits into what Harrison has called a 'typical' AOC. As for the vessel from Porto Torrão, though it is difficult to judge only from the drawing, it also seems to us a 'classic' AOC.

In spite of the difficulty of deciphering the available descriptions, then, all this seems to indicate that there was a high degree of technical and stylistic standardisation in corded vessels in the Peninsula, although they were spatially so widely scattered. What then could have been the basis for such unity? The question brings us inevitably to the core of the Bell Beaker debate. In fact it is impossible to consider even a preliminary article on Beaker pottery without being constantly aware of its problematic cultural interpretation.

In a future paper we shall expand on the local, regional and Peninsular setting of the Castelo Velho vessel; that may be the right place to venture on interpretations which seem at the moment premature.

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ADDENDUM

Following recent correspondence with Richard Harrison, it may be useful here to explain his present position.

From the list of 13 sites in Fig. VIII, Harrison considers that only 10 contain genuine corded Bell Beakers. For him, the sites of Santimamiñe (4), Masada del Ram (6) and Terrera-Ventura (9), besides that of Ferrandell-Oleza, on Mallorca (mentioned in note 2), should be omitted.

However, the exclusion of these three sites makes the discovery of the fragment at Castelo Velho even more exceptional. Harrison considers it 'classic', comparable to the Beaker from Filomena,

on the Spanish Levantine coast. He has emphasized the urgent need to reinterpret Peninsular AOC ware in the context of the complex problems surrounding Bell Beakers in this vast region.

BIBLIOGRAPHY

- ALMEIDA, C. A. B., SOEIRO, M. T. & BARROCA, M. J. (1995), Estação arqueológica do Castelo de Fraião (Boivão, Valença), *Portugalia*, Nova Série, vol. XVI, pp. 311-322.
- ANTUNES, M. T. & CUNHA, A. S. (1998), Restos humanos do Calcolítico Idade do Bronze de Castelo Velho, Freixo de Numão, Vila Nova de Foz Côa nota preliminar, *Côavisão, Cultura e Ciência*, nº 0, pp. 35-42.
- ARNAUD, J. M. (1993), O povoado calcolítico de Porto Torrão (Ferreira do Alentejo): síntese das investigações realizadas, *Vipasca. Arqueologia e História*, vol. 2, pp. 41-60.
- BARBOSA, S. C. P. (1999), O Crasto de Palheiros Murça. Contributo para o entendimento do fenómeno campaniforme em contexto doméstico no Norte de Portugal.

 Masters dissertation presented to the Faculty of Letters of the University of Porto.
- BETTENCOURT, A. M. S. (1991/92), Achado de um vaso campaniforme na Serra do Maroiço Fafe, *Cadernos de Arqueologia*, Série II, vol. 8-9, pp. 233-236.
- CARDOSO, J. L. (2000), O "fenómeno" campaniforme na Estremadura portuguesa, *Pré-História Recente da Península Ibérica*, Porto, ADECAP, pp. 353-380, "Actas do 3º Cong. de Arqueologia Peninsular", vol. IV.
- CARDOSO, J. L. & SOARES, A. M. M. (1990/1992), Cronologia absoluta para o campaniforme da Estremadura e do Sudoeste de Portugal, *O Arqueólogo Português*, Lisbon, série IV, vol. 8/10, pp. 203-228.
- CRIADO BOADO, F. & VÁZQUEZ VARELA, J. M. (1982), La cerámica campaniforme en Galicia, Corunha, "Cuadernos do Seminario de Sargadelos", vol. 42.
- CRUZ, D. J. (1991), A Mamoa 1 de Chã de Carvalhal no contexto arqueológico da Serra da Aboboreira e da Pré-História recente do Norte de Portugal, Coimbra. Project presented as part of public examinations in research & teaching, Faculty of Letters, University of Coimbra.
- CRUZ, D. J. (1992), A Mamoa 1 de Chã do Carvalhal (Serra da Aboboreira), Coimbra, Instituto de Arqueologia, Faculty of Letters, University of Coimbra, "Conímbriga Anexos", vol. 1.
- ESTEVE GÁLVEZ, F. (1956), Cerámica de cuerdas en la Plana de Castellón, *Actas de la IV sesion de C.I.P.P.* (Madrid, 1954), pp. 543-556.
- FIGUEIRAL, I. (1998), Castelo Velho (Freixo de Numão, Vila Nova de Foz Côa). Os restos vegetais carbonizados, *Côavisão*, *Cultura e Ciência*, nº 0, pp. 43-48.
- GONÇALVES, A. A. H. B. & CRUZ, D. J. (1994), Resultados dos trabalhos de escavação da Mamoa 1 de Madorras (S. Lourenço de Ribapinhão, Sabrosa, Vila Real), *Estudos Pré-Históricos*, vol. II, pp. 171 232.
- HARRISON, R. J. (1977a), *The Bell Beaker Cultures of Spain and Portugal*, Cambridge, Massachusetts, Bull of the American School of Prehistoric Research, n° 35.
- HARRISON, R. J. (1977b), Beaker cultures of Iberia, France and the West Mediterranean islands, 2200-1500 B.C., *Beakers in Britain and Europe*, B. A. R., Oxford, ss. 26,

- pp. 5-26.
- HARRISON, R. J. (1980), *The Beaker Folk Copper Age Archaeology in Western Europe*, London, Thames and Hudson.
- HARRISON, R. J. (1988), Bell Beakers in Spain and Portugal: working with radiocarbon dates in the 3rd millennium B.C., *Antiquity*, vol. 62, pp. 464-472.
- JORGE, S. O. (1986), *Povoados da Pré-História Recente da Região de Chaves V^a P^a de Aguiar*, 3 vols., Porto, Instituto de Arqueologia, Faculty of Letters, University of Oporto.
- JORGE, S. O. (1993), O povoado de Castelo Velho (Freixo de Numão, Vila Nova de Foz Côa) no contexto da pré-história recente do Norte de Portugal, *Iº Congr. Arqueologia Peninsular*, vol. I, Porto, SPAE, pp. 179-216.
- JORGE, S. O. (1994), Colónias, fortificações, lugares monumentalizados. Trajectória das concepções sobre um tema do calcolítico peninsular, *Revista da Faculdade de Letras*, 2ª série, vol. XI, Porto, pp. 447-546.
- JORGE, S. O. (1998), Castelo Velho de Freixo de Numão (Vila Nova de Foz Côa, Portugal): breve genealogia de uma interpretação, *Estudos Pré-Históricos*, vol. VI, pp. 279-293.
- JORGE, S. O. (1999a), Castelo Velho de Freixo de Numão (V^a N^a Foz Côa, Portugal), Geschichte der Interpretationsversuche, *Madrider Mitteilungen*, vol. 40, pp. 80-96.
- JORGE, S. O. (1999b), Domesticar a Terra. As primeiras comunidades agrárias em território português, Lisbon, Gradiva Publicações.
- JORGE, S. O. (2001), Castelo Velho (Freixo de Numão, Vila Nova de Foz Côa, Portugal) et la problématique des "habitats fortifiés" de la Péninsule Ibérique, *Communautés Villageoises du Proche Orient à l'Atlantique* (dir. Jean Guilaine), Paris, Ed. Errance, pp. 241-252.
- JORGE, S. O. (in press a), Etapas de estudo e valorização do sítio pré-histórico de Castelo Velho de Freixo de Numão, Vila Nova de Foz Côa, Portugal, Actas do Simpósio "Conservação e intervenção em sítios arqueológicos e monumentos históricos", Oporto Paredes de Coura, Universidade Portucalense Infante D. Henrique Municipality of Paredes de Coura, April 2001.
- JORGE, S. O. (in press b), Un vaso campaniforme cordado no Norte de Portugal: Castelo Velho de Freixo de Numão (V.ª N.ª de Foz Côa). Breve notícia, Porto, *Revista do Departamento de Ciências e Técnicas do Património*, vol. 1.
- JORGE, S. O.; OLIVEIRA, M. L.; NUNES, S. A. & GOMES, S. (1998/99), Uma estrutura ritual com ossos humanos no sítio pré-histórico de Castelo Velho de Freixo de Numão, *Portugalia*, Nova Série, vol. XIX-XX, pp. 29-70.
- JORGE, S. O. & RUBINOS, A. (2002), Cronologia absoluta de Castelo Velho de Freixo de Numão: os dados e os problemas, Côavisão, Ciência & Cultura, vol. 4, pp. 95-111.
- JORGE, V. O.; BAPTISTA, A. M.; SILVA, E. J. L. & JORGE, S. O. (1997), As Mamoas do Alto da Portela do Pau (Castro Laboreiro, Melgaço). Trabalhos de 1992 a 1994, Porto, S.P.A.E.
- JORGE, V. O.; MURALHA, J.; PEREIRA, L. & COIXÃO, A. S. (2002), Castanheiro do Vento and the significance of monumental Copper and Bronze Age sites in northern, Portugal, Monuments and Landscape in Atlantic Europe, London, Routledge, pp. 36-50.
- MORENO LÓPEZ, G. (1971/72), Cerámica campaniforme en la Cuenca Alta y Media del Ebro y provincias adyacentes, *Caesaraugusta*, vol. 35-36, pp. 29-51.

- SALANOVA, L. (2000a), La Question du Campaniforme en France et dans les Îles Anglo-Normandes. Productions, chronologie et rôles d'un standard céramique, Paris, Ed. du CTHS: Société Préhistorique Française.
- SALANOVA, L. (2000b), Mecanismes de diffusion des vases campaniformes: les liens franco-portuguais, Pré-História Recente da Península Ibérica, Oporto, ADECAP, pp. 399-409, "Actas do 3º Congr. de Arqueologia Peninsular", vol. IV.
- SANCHES, M. J. (1997), *Pré-História Recente de Trás-os-Montes e Alto Douro*, 2 vols., SPAE, "Textos", vol. 1.
- SANCHES, M. J. (in press a), O Crasto de Palheiros (Murça): do Calcolítico à Idade do Ferro, *Portugalia*, Nova Série, vol. XXI-XXII (2000-2001).
- SANCHES, M. J. (in press b), O Crasto de Palheiros (Murça Trás-os-Montes). Interpretação dum sítio fundado nos alvores da metalurgia calcolítica e exposição dum novo programa de estudo e musealização, *Actas da Reunión Minería y Metalurgia de la Edad del Bronce. Una revision desde el valle del Duero*, Zamora, 1-2 June 2001, Instituto Rei Afonso Henriques.
- SUÁREZ OTERO, J. (1997a), Un vaso campaniforme com decoración cordada en Galicia: A Fontenla (Moaña, Pontevedra), *Boletím Auriense*, vol. XXV, pp. 9-36.
- SUÁREZ OTERO, J. (1997b), Cerámica campaniforme com decoración cordada en la Península Ibérica. Acotaciones en torno a una problemática, *Boletín Auriense*, vol. XXVI, pp. 27-46.
- WALDREN, W. H. & KENNARD, R. C. (ed.) (1987), Bell Beakers of the Western Mediterranean. Definition, interpretation, theory and new site data, B. A. R., Oxford, International Series, 331.

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Fig. I – Location of the site of Castelo Velho de Freixo de Numão within the Iberian Peninsula.

Fig. V – The corded Bell Beaker sherd from Castelo Velho de Freixo de Numão (drawing by Lídia Azevedo).

Fig. VI – Macrophotograph of the Castelo Velho corded Bell Beaker sherd (ICBAS picture service, University of Oporto.).

Fig. VIII – Map showing distribution of all-over corded Beakers (AOC) in the Iberian Peninsula (adapted from Harrison, 1977a, fig. 3 and Suárez Otero, 1997 b, fig. 1). 1. Amalda II; 2. Anton Koba; 3. Lumentxa; 4. Santimamiñe; 5. Camón de las Fitas; 6. Masada del Ram; 7. Cueva Merinel; 8. Filomena; 9. Terrera – Ventura; 10. Porto Torrão; 11. A Fontenla; 12. Arca dos Penedos; 13. Castelo Velho de Freixo de Numão.

Fig. II - Plan of the hill of Castelo Velho. Shown here: in black, part of the upper enclosure; in grey, area excavated

in 2001 (plan based on topographic survey by Armando Guerreiro and on excavation directed by the present author) after excavations in 2000. M – outer wall of upper enclosure; TR – central tower; RPI – first 'ramp'; PF1 - intermediate platform; RP2 - second 'ramp'. Black dot & arrow - Bell Beaker sherd found in Fig. III – Schematic plan of the site of Castelo Velho, on the level of the second phase of construction,

Fig. IV - E-W cross-section of the area of the site where the Beaker sherd was found. This section is located at approx. 4 metres north of the particular locus of the Bell Beaker. The sherd was found in L'15, at the bottom of layer 3, approx. 50 cm below present surface level (final drawing by Vítor Fonseca)

square L'15 (final drawing by Vítor Fonseca)

4. Dolmen of Barrosa; 5. Mound, Aspra; 6. Mound, Mamoa de Eireira; 7. Mound, Mamoa de Chafé; 8. Lugar de Vargo; 9. Mound, Guilhabreu; 10. Dolmen 1, Chã de Parada; 11. Mound 2, Outeiro de Ante; 12. Tapado da Fig. VII – Map showing distribution of Bell Beakers in northern Portugal (adapted from Jorge, S. O., 1986, vol. I B, fig. 3 and Cruz, D. J., 1991, fig. 43). 1. Chā de Arcas; 2. Mound 1, Portela do Pau; 3. Castelo de Fraião; Caldeira; 13. Mound 1, Chã do Carvalhal; 14. Mound, Monte Maninho; 15. Mound, Vale de Juros; 16. Mound 2, Carvalhelhos, 17. Pastoria; 18. Mound 1, Madorras; 19. Crasto de Palheiros; 20. Castanheiro do Vento; 21. Cas-

telo Velho de Freixo de Numão.